Preface

In 2016, the ITTCS was held in the format of Young Scientists IT Forum within the framework of the project named "NTI talents". The Forum intends to bring together Russia's top business and trade associations, the development institutes, expert and professional communities, becoming a platform for discussion the recent global IT trends and new interaction and communication strategies for the National technical initiative (NTI) leading groups. The NTI model is based on the early identification of high-potential and talented employees and the creation of a favorable environment to unlock the person's potential, and to provide the companies with a pool of skilled workers. The conference was attended by IT Entrepreneurs, the representatives of leading Russian universities and research institutes such as Moscow Polytechnic University, Peter the Great St. Petersburg Polytechnic University and LG TCM.

ITTCS was being held from 8-10 December, 2016 in Yekaterinburg, Russia under the overall theme "Grand challenges and new solutions". The Ural Federal University named after the first President of Russia B. N. Yeltsin was selected to host the conference being one of the leading educational institutions in the Ural region. For 3 days of work the program committee heard 30 reports of young scientists selected for presentation from 64 submissions. As a result, the best three reports were selected:

- 1. Automatic wood log detection based on random decision forests learning algorithm and histogram of oriented gradients (presented by Atamanova Anastasia)
- 2. Automated control of the color rendering index for led RGBW modules in industrial lighting (presented by Moskvichev Sergey)
- 3. Investigation of speed comparator operating features above the sea surface (presented by Sedov Dmitry)
 The proceedings of the ITTCS 2016 consist of 13 best papers which were selected by Program Committee from presented reports. We would like to thank all the authors for their submissions, and our Program Committee for their precious work.

The conference goal

The Conference keeps pace with the growing needs and interests of its members, covering different areas of IT and engineering. The vital goal is to promote the young scientists' achievements contributing to the creation of favorable conditions for Russia's global technology breakthrough by the year 2035.

The conference objectives

The Conference agenda will work as a competence platform, providing facilities for efficient communication to boost the IT science and engineering knowledge of young scientists and help them in their professional development. Young scientists will be given a unique chance not only to improve their presentation skills and public speaking abilities but to gain an experience of independent scholar publication.

New alliances between young scientists are to be built, and existing partnerships are to be strengthened at the Conference platform.

August 2017 Yekaterinburg, Russia Artem V. Kruglov Sergey N. Shabunin Andrey Yu. Filippovich Ilya A. Lepeshkin

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